

The BLM Uncompahgre Field Office (UFO) is revising the Resource Management Plan (RMP) for the Uncompahgre planning area. The Uncompahgre RMP will provide detailed information about the current state of resources on public lands within the planning area, and set forth a plan of action for managing those resources for the next twenty or so years under the BLM's dual mandate of *multiple use* and *sustained yield*.

As part of RMP planning, a renewable energy potential report is being prepared that identifies the potential for renewable energy development and the potential location of such development on BLM land within the planning area. Renewable energy resources include biomass, wind, geothermal, and solar.

### BIOMASS ENERGY

Biomass includes food crops, grassy and woody plants, residues from agriculture or forestry, and the organic component of municipal and industrial wastes, utilized to produce energy. It can be used for biofuels (i.e. ethanol and biodiesel), biopower (electricity generation), and bioproducts (i.e. plant-based plastics). Biomass can be collected and harvested from BLM lands through stewardship, timber sales, and hazardous fuels reduction.

The Department of Energy evaluates biomass resources for the U.S. in thousand tonnes/year, with a range of below 50 (low) to above 500 (high). Most locations in the planning area fall below 50 thousand tonnes/year. However, a 2005 BLM Renewable Energy Assessment using NASA vegetation data indicates that the area may have some potential for biomass production.

### WIND ENERGY

Wind is a form of solar energy caused by irregular heating of the atmosphere by the sun. Earth's terrain and rotation of the earth also effect wind and modify it. Wind power uses wind turbines to harvest the energy of moving air and convert to mechanical energy or electricity. It is the world's fastest growing energy source.



Wind energy developments are granted as rights-of-way. BLM completed the ***Wind Energy Development Final Programmatic Environmental Impact Statement (EIS)*** in 2005 to determine the potential associated with wind energy development on BLM lands in the western U.S. Using data generated by TrueWind and validated by the

National Renewable Energy Laboratory, the BLM created maps showing low, medium, and high potential areas, and developed a maximum potential development scenario on public lands for the next 20 years.

The following screening criteria determine high potential areas:

- Wind power class of 3 and above
- Within 25 miles of transmission lines (69-345 kV)
- Within 50 miles of major roads.

Based on this assessment, there appear to be few economically developable lands within the planning area.



## GEOTHERMAL ENERGY

Access to BLM geothermal resources is granted through a formalized leasing process. There are two types of geothermal use:

- **Direct Use** – Utilization of geothermal resources for commercial, residential, agricultural, public facilities, or other energy needs other than the commercial production of electricity
- **Indirect Use** - Commercial electrical generation

A **Geothermal Programmatic EIS** completed in 2008 indicates that 593,640 acres in the planning area are open to leasing, and may have geothermal development potential.

There are currently no geothermal facilities or pending applications for geothermal facilities in the planning area. Three existing hot springs are located on private land in the southern part of the planning area:

- Orvis Hot Springs located approximately two miles south of Ridgway, Colorado
- Ouray (Radium) Hot Spring located less than one mile north of Ouray, Colorado
- Lemon Hot Spring located in the town of Placerville, Colorado.

## SOLAR ENERGY

Solar radiation is the most abundant source of energy on Earth. (The sun radiates more energy in one second than the world has used since time began.) Solar radiation is converted to energy through various technologies. Solar energy developments are granted as right-of-ways.

The BLM is currently conducting a Solar Programmatic EIS that analyzes the environmental impacts of utility-scale solar energy facilities in six western states: Colorado, Arizona, California, Nevada, New Mexico, and Utah.

Nationwide, 24 tracts of BLM-administered lands were considered for in-depth study of solar development. In Colorado, four study areas have been identified: Antonito SE, De Tilla Gulch, Fourmile East, and Los Mongotes East. None are located within the planning area. The lands identified:

- contain at least 2,000 acres
- have excellent solar resources
- have suitable slope
- are in proximity to roads and transmission lines

A BLM/Department of Energy Renewable Energy Assessment conducted in 2003 made use of available GIS data, and developed screening criteria in order to identify high potential areas in the Western U.S. Based on this assessment, no high-potential resource area for concentrating solar power is available in the planning area. However, some areas have good potential for photovoltaic resources.

### *The BLM wants your input...*

- **How should renewable energy development be managed to minimize resource conflicts?**
- **Are there public lands that should be excluded from renewable energy development because of conflicts with other public land uses? If so, where?**
- **What visual considerations relate to management of renewable energy resources, and how should BLM's Visual Resource Management play a role?**
- **What are the potential social and economic benefits and impacts associated with renewable energy development? How might planning decisions affect communities in southwest Colorado?**

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**UFO Planning Webpage:**  
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